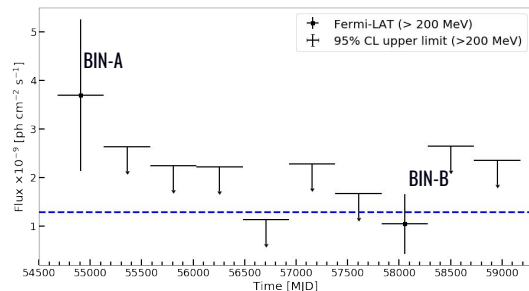


Possible photohadronic origin of the IC-20114A alert

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What is this contribution about?

This contribution explores a hadronic scenario in which the blazar 4FGL J0658.6+0636 might be responsible for the recent neutrino alert IC-20114A

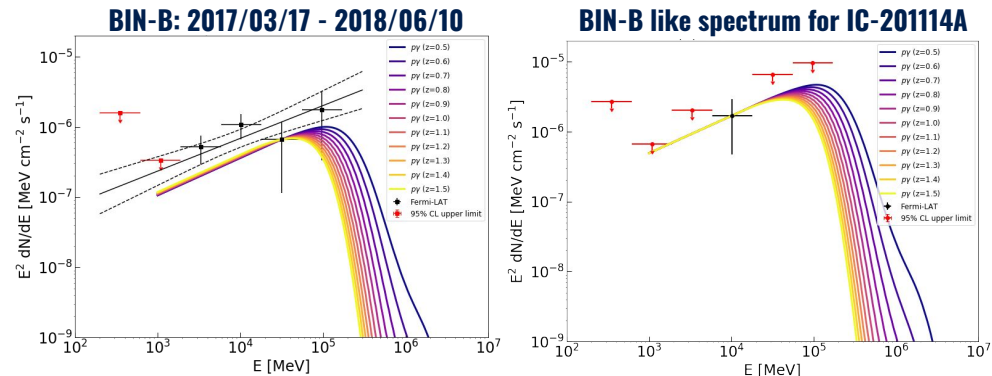


What have we done?

We performed a Fermi-LAT analysis with more than 12 years of data from the blazar 4FGL J0658.6+0636, identifying the periods of significant gamma-ray activity and calculating the contribution to the gamma-ray flux. We also estimate the minimum detection time for a couple neutrino events.

What is the result?

Under the assumptions made for the photohadronic scenario, we found some compatible results with the behaviour of the source, although more evidence is needed to confirm 4FGL J0658.6+0636 as a neutrino emitter.



Why is it relevant/interesting?

Around 30 astrophysical IceCube neutrino alerts are expected per year. The study of these alerts and follow-up observations could lead to the identification of an astrophysical neutrino source in upcoming years.